Contractual Democracy

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Recent contributions suggest that introducing political contracts could make liberal democracy more efficient without altering its fundamental values. Such contracts might foster the public's trust in politics. In this article, we review and structure the current state of affairs on Contractual Democracy. We discuss four archetypes of political contracts and ways of implementing them. We outline the certification and control procedures for political contracts, and address the major concerns arising with regard to Contractual Democracy.

1. INTRODUCTION

The objective of liberal democracy is to promote the well-being of society while preserving its own fundamental values.[1] Yet, although they are socially desirable, many political projects fail to materialize in democracy. The reasons for such political failures are documented in well-known literature sources.[2] Recent contributions contain a set of ideas that aim at improving the functioning of liberal democracy without interfering with its fundamental rules and values. The proposals for improving democratic elections center around political contracts, which can supplement democratic elections and help to select, motivate and control politicians.

Political contracts, offered by candidates for public office (or designed by the legislature), differ from contracts in the private sector[3] in various important respects. First, political contracts are not agreements between two parties, but one-sided written declarations of electoral promises of politicians, coupled with remunerations or sanctions, depending on whether these promises are kept or not. Second, political contracts are subject to the rules of liberal democracy: only promises that do not interfere with the fundamental rules of liberal democracy can become political contracts. In particular, periodic, free, and anonymous elections with equal voting rights to select the office holders for the executive and legislative branches should

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not be endangered by political contracts. Similarly, equal rights in competing for public office, the separation of powers – with an independent judicial system –, and respect for basic rights are cornerstones of liberal democracy that must be respected by the issuers of political contracts. As a consequence, political contracts are subordinate to the fundamental rules of liberal democracy in a hierarchy where the latter must not be altered by the former. We call this hierarchical model "Contractual Democracy."

The first purpose of this article is to review and to structure the current state of affairs on Contractual Democracy.[4] We advocate a specific certification and renegotiation procedure, and we propose several avenues for further research. Finally, we address the major concerns connected with the proposal.

The paper is organized as follows: In the next section we introduce four archetypes of political contracts and discuss some areas where they could be applied. In section 3, we outline how political contracts can be introduced and how liberal democracy can actually be transformed into Contractual Democracy. In the fourth section we outline the certification procedure for political contracts and discuss renegotiation clauses. In section 5 we discuss the potential of political contracts. In section 6 we illustrate how threshold contracts work by an example. In section 7 we address general concerns arising in connection with Contractual Democracy. Section 8 concludes.

2. FOUR ARCHETYPES OF POLITICAL CONTRACTS

In this section we describe four archetypes of political contracts that can be used to improve the functioning of democracy. We use the expression "political actors" for parties or single candidates competing for office and thus potentially offering political contracts.

2.1. REELECTION THRESHOLD CONTRACTS

2.1.1. *The Contract*

The first type of political contract is the reelection threshold contract. A threshold contract stipulates a performance level that a politician must reach by the end of a term to obtain the right to stand for reelection. The performance level or threshold must be either a number (or a set of numbers), or it must describe a non-manipulable and decidable event.

The extent to which election promises – in the form of thresholds – have been honored is assessed before the next election. If a politician has failed to meet "his" threshold, he loses his right to run for reelection. If he has been successful, the politician can run for office in the customary way, and democratic elections take place.[5]

2.1.2. *Examples*

There are various well-known situations where threshold contracts could have been applied. After US President George Bush senior had announced "read my lips: no new taxes", threshold contracts would not have allowed him to stand for reelection after having gone back on this campaign promise.[6] Another example comes from Germany. In their election campaigns in the 90s, both candidates for the office of Chancellor, Kohl and Schröder, pledged to reduce unemployment. Both promises would have qualified for a threshold contract as outlined above, and both politicians failed to keep their promise. If the promise had been secured by a threshold contract, they would have left office much sooner or might have succeeded in reducing unemployment. Finally, politicians frequently promise to reduce government debt during campaigns. Public debt levels would qualify for a performance level defined in a threshold contract.[7]

2.1.3. *Sophisticated Threshold Contracts*

Simple threshold contracts can be adjusted in three directions. First, threshold contracts of political actors can be conditional on the coalition formed to govern the country after the election. Such conditional contracts prevent political actors from making promises that will become untenable if they are forced into a coalition after elections. A famous example where such conditional threshold contracts might have been helpful was observed in 2005 in Germany, where the large parties, CDU/CSU and SPD, made promises regarding the value-added tax rate that were incompatible with one another. When both parties were forced into a coalition, the parties reneged on their promises.[8]

Second, thresholds can be based on prices on an information market.[9] The information market can be used to predict the next-but-one reelection chances of an incumbent, for instance, which serves as an indicator for the long-term well-being of a society.

Third, threshold contracts may be based on the actual election outcome and are called "vote-share contracts."[10] Such a contract stipulates a vote threshold above $\frac{1}{2}$, which the incumbent has to reach in order to be reelected. Hence it becomes harder for an incumbent to be reelected than for a politician who is competing for office for the first time. More generally, vote-share contracts can be made dependent on the number of terms an office holder has served.[11]C

Such contracts require a careful implementation. If the incumbent does not reach the threshold, the challenger may be declared elected. However, as the vote share of the challenger may be below $\frac{1}{2}$, a separate run-off ballot between two candidates appears to be preferable in such cases. One candidate could be the challenger from the first election and the other candidate could be new. The possible run-off between two challengers could occur simultaneously with the election between the incumbent and his challenger, as one can combine both ballots. The second vote in the run-off will only be relevant if the incumbent does not reach the vote threshold.

2.2. Other Short-Term (Monetary or Non-Monetary) Contracts

2.2.1. *The Contract*

Short-term monetary contracts stipulate how the salaries of politicians will vary with the performance they achieve within a term. Various performance criteria are conceivable: the size of the budget deficit, whether or not specific important public projects have been undertaken, or whether specific laws have been abolished or introduced.[12]

Short-term contracts can also involve immaterial benefits (or punishments). For instance, bad performance could imply general elections earlier than at the end of a normal term, while excellent performance could imply a prolonged term in office before the next election is called.

2.2.2. *Examples*

Short-term monetary contracts have been used in some provinces in Canada. In the province of Manitoba, for instance, the salary of each member of the Executive Council was made dependent on the fiscal discipline in a particular period and on whether the budget balance was violated repeatedly (see Kennedy and Robbins, 2001). In Germany, the leader of the Liberal Party of Baden-Württemberg, one of the Federal States, suggested that the members of the cabinet should conclude a contract on the aims of the government. This contract would prescribe a loss of 10 to 30 percent of their salary if those aims were not met (see, e.g., Homburger, 2005).

In Yukon, Canada, an interesting non-monetary contract was devised in the Taxpayer Protection Act, R.S.Y. 2002. If an accumulated deficit has occurred, or an existing deficit increased, the Legislative Assembly is to be dissolved, as it did not fulfill its budget-control duty. Moreover, a specific procedure for eliminating an accumulated deficit is outlined (see Kennedy and Robbins, 2001).

In England, the Comprehensive Performance Assessment framework introduced in 2001 rated local governments on the quality of major services they provide. The scheme includes incentive components for elected officials, such as targeted support for councils in difficult environments and rewards for better-performing councils. For an analysis of this scheme, whether and how it provides incentives and how it interacts with voting behavior, see Boyne (2009), Revelli (2010), and Lockwood and Porcelli (2012).

2.2.3. *Coalition-Membership Contracts by Parties*

A special short-term contract is a coalition-membership contract that specifies the set of possible partners a party is willing (or unwilling) to accept when forming a government coalition. If a party violates its coalition-membership contract, i.e., if it enters into a coalition with a partner that was excluded from the list of possible parties in the contract prior to the election, it would be punished accordingly, a possible penalty being the reduction of public party-funding. Coalition-membership contracts could have been applied in Germany, for instance, at the general election in 2005. The SPD stated before the election that it would not form a coalition involving the party "Die Linke." This promise was kept. However, at the state election of 2008 in Hesse, the SPD made the same promise, but subsequently proved willing to renege on it.[13]

2.3. Long-Term (Monetary or Non-Monetary) Contracts

2.3.1. *The Contract*

Long-term contracts make the utility of politicians after the current term dependent on the outcomes they can influence by their actions today. The reward can either be granted in the next period of office or after retirement from office. Monetary rewards such as variations in salaries and pensions can be used for this purpose.[14]

Immaterial rewards are equally conceivable. For example, a politician honoring election promises could have his next period in office extended by one year if he is reelected. Politicians retiring from office after performing well in long-term projects might be granted a seat in a governmental advisory board of elder statesmen, or might obtain the status of "Father of the State."

2.3.2. *Examples*

Long-term political contracts could be used in various areas, such as unemployment or budget balance. If unemployment or the national debt have been reduced within a number of years, or if a politician has succeeded in keeping a balanced budget over a long time-span, he might be granted a reward. A particular form of long-term contract conditions future rewards upon specific events, such as the implementation of large projects or international treaties. Similar or longer time-horizons are imaginable in the area of climate change. A politician may obtain the status of a "Father of the State," for instance, if he significantly reduces the emissions of greenhouse gases over a decade.

2.4. CONTRACTS FOR FUTURE MAJORITIES

A fourth type of political contract can motivate politicians to undertake projects for those voters who are in the minority today, but will be in the majority tomorrow. A basic idea for such contracts is rejection/support rewards (RSRs).

2.4.1. *The Contract*

RSRs work as follows: If an incumbent is rejected in his bid for reelection, but receives the majority of votes from the younger generation, say, individuals below the age of 45, he is entitled to a special reward, i.e. a pecuniary or non-pecuniary utility transfer. The practical application of RSRs requires that ballots be differentiated according to the age of citizens. Given a particular threshold for age (say 45), ballots must contain an indicator variable that assigns a voter to one of the two age classes.

2.4.2. *Examples*

RSRs could be applied as a general rule in democracies.[15] RSRs are particularly relevant for political projects where the initiation of policy measures and their consequences are decades apart, e.g. the mitigation of climate change or investment in basic research. Hence, it would also be conceivable to couple RSRs directly with the question whether an incumbent undertakes long-term projects at all. Then, RSRs would only apply if the incumbent offered a long-term political contract including specific projects of this nature.

3. INTRODUCING AND PROPOSING POLITICAL CONTRACTS

There are two fundamental questions regarding the introduction of political contracts.

- Will the legislature allow such contracts?

- Will such contracts be offered at all?

3.1. Allowance of Contracts

The answer to the first question could be affirmative if such contracts actually improve the well-being of the current generation. However, as politicians themselves may not benefit from such contracts (see, e.g., Gersbach and Liessem, 2008a), a governing parliament majority may decide to neither offer nor accept laws allowing political contracts. Nevertheless, the competition among parties to form governments can foster the introduction of laws that allow political contracts. This was suggested, for instance, in Gersbach (2004).[16]

Introducing political contracts is particularly difficult for rejection/support rewards, as such rules are designed to benefit younger generations that have no majority at present.

Two changes are necessary. First, at the operational level, RSRs must be coupled with a change in the voting procedure, as ballot papers must bear an indicator of the age class to which each voter belongs. Second, RSRs must be introduced at the constitutional level, coupled with a qualified majority requirement for their abolishment. Otherwise, the older generation would eliminate RSRs even if they had been introduced before. In Gersbach and Kleinschmidt (2009), two ways of implementing RSRs, *delayed introduction* and *funding by the younger generation*, are identified.

First, delayed introduction means that the proposal to introduce RSRs would comprise their being implemented only after a delay. Second, the younger generation could set up an organization that collects funds to pay RSRs. Once an office holder is deselected, he would be awarded an RSR if he has received a majority of votes from the younger generation.

3.2. Introducing Specific Contracts

As to the question whether contracts will be offered at all, one has to distinguish two cases.

3.2.1. *Case I*: *Competition of Political Actors for Contracts*

The easiest way is to allow candidates for public office to compete by offering political contracts. Here, it will be entirely up to the politicians to decide which type of political contracts – if any – they intend to propose.[17] As politicians have only limited power and may depend on the approval of other bodies to undertake policy projects, they will be careful when designing their political contracts and may wish to obtain the agreement of their party to create collective responsibility for fulfilling the contract. Several papers have shown that once political contracts are allowed, competition between politicians ensures their actual introduction (Gersbach, 2004; Müller, 2007; and Gersbach and Liessem, 2008a).

3.2.2. *Case II*: *Design by Legislature*

It is also possible for the parliament itself to impose political contracts on the members of the executive branch (e.g., Gersbach, 2003). This is particularly important for members of the executive branch not elected by the public, but appointed by government bodies. Short-term contracts for ministers, for instance, have to be designed by the parliament. Moreover, it might be useful if the parliament – and not the political actors themselves – designed monetary incentive contracts of any kind to prevent voters from suspecting "self-service behavior" on the part of the politicians.

4. CERTIFICATION PROCEDURE AND RENEGOTIATION

4.1. THE CONTRACTING ENVIRONMENT

As summarized in the introduction, there are some important differences between principal/agent relationships in the private sector and the relationship between the electorate and the politicians. In particular, political contracts are one-sided written declarations of the electoral promises of a politician, and are subordinated to the rules of liberal democracy. The latter difference simply constrains the set of feasible political contracts. The former difference raises the question whether political contracts are in the interest of the electorate. This will be addressed in section 5. Moreover, as the public is not involved – nor signs political contracts –, additional procedures are needed to define how the electorate can accept a political contract and how such contracts will be enforced. This will be dealt with next.

4.2. CERTIFICATION PROCEDURE

As in economic models of contracts between private agents (see, e.g., Watson, 2007), the contracting environment in the political sphere has to be dealt with carefully. We propose the following procedure to certify political contracts in the case of reelection threshold contracts, other short-term contracts, and long-term contracts.

An official body, which we shall call the "certification authority," reviews the following conditions:

- Does the proposed contract respect the values of liberal democracy?
- Does the proposal for a political contract tie feasible policy projects to their outcomes?
- Are the terms of the contract and its time frame described in such a way that a clear-cut answer is possible as to whether the contract has been fulfilled or not when the contract is up for review? In other words, is the contract verifiable?

If – and only if – the answers to all three questions are affirmative, the certification authority will approve the proposals. A necessary condition is the availability of hard and non-manipulable information at the time of review. A certified proposal is published and functions as a political contract. Later, the certification authority can also serve as an external enforcer.

4.3. Organization

The certification procedure outlined above requires a certification and enforcement authority. Such an authority has to be independent from political parties forming the government, as otherwise, the political parties in power may be able to alter the legislation on political contracts, which would undermine enforcement.

Therefore, the certification and enforcement authority cannot be part of the legislative or executive branch. There are several options. First, it could be a separate entity of the constitutional court. Second, in countries in which non-partisan representatives of the state exist which are independent of the executive and legislative branch, the certification of political contracts could be one of their tasks. In Germany, for example, the Federal President could act as the certification authority. In both cases, constitutional court or Federal President, no specific appointment procedures are required, as existing bodies are entrusted with the tasks of certification and enforcement.

Still, political economic reasoning suggests that private interests and the political preferences of such bodies may matter, as they also have to be appointed by the legislature or by a separate body.

4.4. Renegotiation

With the exception of rejection/support rewards, political contracts should be coupled with a clause that allows the cancellation of the contract in the event of extraordinary circumstances such as a war or catastrophes. The cancellation of certified political contracts should be possible if it is approved by a super-majority of members of the parliament. One could also imagine other forms of renegotiation.[18] In particular, one could allow a contract holder to offer an alternative political contract for the remaining duration of the original contract. If the new contract is certified and supported by a super-majority of members of the parliament, it will replace the old one.

5. POTENTIAL OF POLITICAL CONTRACTS

In this section we discuss the types of political failure that can be alleviated by the different political contracts.[19]

5.1. GENERAL CONSIDERATIONS

With the exception of RSRs, discussed in subsection 5.5, all political contracts have some common features. The main advantage of political contracts is the increased incentive to honor election promises. Politicians seeking office make promises in an attempt to influence the voters' beliefs about the policies that a politician will undertake, if elected, and about the politician's abilities. To some extent, repeated elections can punish candidates who renege on their campaign promises.[20]

However, politicians may lack the incentive to honor promises and to devote a socially desirable amount of effort to certain tasks. Numerous reasons why this might happen have been put forward in the literature, including a weak relationship between past performance and reelection chances, political uncertainty in general,[21] the finite time-horizon of the politician, the rational ignorance of voters,[22] a long time-span between policy measures and outcomes, lags in the observability of outcomes,[23] or the lobbying of special interest groups. Even without these reasons, the electorate's threat to coordinate on deselecting incumbents who have failed to deliver on their promises may be time-inconsistent (Aragones et al., 2007). When the ability of a challenger is perceived to be below that of the incumbent, for instance, deselection is not in the interest of the electorate at the election date, even if the office holder has reneged on his promises.

The kind of commitment achieved by political contracts would encourage – if not enforce – serious efforts to convert election promises into policies. Such positive incentive effects have been shown, e.g., in Gersbach (2005) and Gersbach and Liessem (2008a). These positive incentive effects survive when preferences of the candidates are unknown to the public (Liessem, 2008).

Moreover, political contracts would facilitate and improve communication between politicians and the public. They would enhance the politicians' authenticity, as those unwilling to commit to certified promises would lose some of their credibility. The separation into more or less credible promises would not only improve exchanges between citizens and politicians, it would also strengthen the citizens' trust in politics, an objective that is desirable in its own right.

Still, political contracts do not eliminate the heterogeneity of citizens' preferences for particular policies, and each polity has to decide on how much to redistribute. Moreover, political contracts might also have disadvantages. Politicians might focus too exclusively on the realization of their certified promises to the detriment of other areas. This and other concerns will be taken up in subsection 7.3.

5.2. Threshold Contracts

The considerations outlined above apply for all contracts except RSRs, but they are particularly noticeable for threshold contracts.

Threshold contracts may also curb the influence of well-organized special interest groups, as office holders are better protected against lobbying activities. Moreover, threshold contracts in the form of limits on tax rates, for instance, decrease the perks of politicians (see Gersbach and Schneider, 2008).

Vote-threshold contracts create further and other types of incentive effects. When the reelection hurdle for a politician increases with the number of terms in office, this not only motivates the office holder to work hard to increase the welfare of the citizens, it also curbs welfare-reducing incumbency advantages whose existence has been documented in the political-economic literature. Hence entry will become easier. Moreover, as reelection becomes harder and harder, an incumbent may renounce reelection campaigns earlier than under normal elections. Hence vote-share thresholds will shorten the tenure of politicians.

Threshold contracts may also be useful in providing incentives for competent individuals to run for election.[24] Competent candidates can offer tighter thresholds and thus increase their election chances over other candidates. Yet, as less competent candidates have an incentive to pool with competent candidates in order to get elected at least once, voters face a serious inference problem if competence cannot be observed. Still, in comparison to elections alone, the possibility of using threshold contracts should help voters in their selection efforts.[25] This selection argument is, however, as yet less developed than the incentive argument.

However, political competition with threshold contracts may also encourage overpromising. In order to get elected at least once, candidates may offer threshold contracts that promise many good things to society but will never be fulfilled. This problem is examined in Gersbach and Müller (2006), where it is shown that voters can use simple election schemes to punish overpromising behavior.

One downside risk of threshold contracts is posed by near-end-of-term negative incentive effects. If a politician has no chance of meeting his threshold near the end of his term, he might behave like a "lame duck," reducing his efforts because his reelection chances are nil.

5.3. Other Short-Term Contracts

In principle, similar considerations can be applied to other short-term contracts. There are, however, important differences between short-term monetary contracts and threshold contracts. Short-term monetary contracts are less vulnerable to overpromising, as bad performance is punished immediately by a salary reduction. For non-elected ministers, such contracts can also be easier to use. However, the drawback of short-term monetary contracts is the type of reward/punishment they entail. As elected politicians tend to care more about power, the policies they can implement, and their own career opportunities after holding office than about money, it is easier to select, control and motivate office holders by threshold contracts than by monetary rewards. Threshold contracts affect the most important elements in the utility of a politician directly.

5.4. Long-Term Contracts

In modern national economies, the time-span between the initiation of policy measures and their outcome is often very long, frequently exceeding one election period. Tax reforms, budget balance, reforms of the labor market, reduction of CO_2 emissions, and basic research investment to promote the development of new technologies are well-known examples. To be reelected, politicians have to offer visible proof of their accomplishments before the next elections. Accordingly, they may lack the incentive to undertake policies that will only produce benefits after their period of office is over. As the reelection mechanism does not foster the implementation of long-term projects, long-term political contracts can be used to promote them.

Gersbach (2003) introduces long-term contracts and shows how the public can make the value of a second term in office dependent on the realization of the outcomes of long-term policy projects. As a consequence, the incentive for a politician operating under such political contracts to undertake socially desirable long-term policies increases.

Gersbach (2004) shows that competition for office among politicians with long-term political contracts that will become effective upon reelection alleviates inefficient decision-making in politics. The contract still helps to increase public welfare if the public is unsure about the politicians' time preferences. The incentive for the electorate to reject the incumbent in order to economize on his future remunerations can be neutralized by parachute clauses. Such clauses guarantee a future bonus to a politician, even if he is no longer in office. The positive incentive effects remain operative for various alternative formulations of the utilities of politicians, as shown by Müller (2007).

Long-term political contracts may, however, also be used to tie the hands of future governments. For instance, current office holders may write contracts including large infrastructure projects which take a long time to build and which put the corresponding financing burden on future generations. As we know from the literature, such possibilities may lead to inefficient outcomes (see Persson and Tabellini (2000) for a discussion). Inefficiencies of this kind may reduce the efficiency gains of the long-term contracts identified above.

5.5. Rejection/Support Rewards

Democracy may find it particularly difficult to pursue policies that mainly benefit future generations. If the beneficiaries of such long-term policies only form a minority today, politicians may not undertake them, since this would reduce their chances of being reelected. The problem of socially desirable policy projects whose investment expenditure only pays off much later was discussed extensively in connection with government debt, social security, and global warming.

When a society experiences a slow-down or even a decline in population growth, for instance, adjustment and/or change of the pay-as-you-go system becomes inevitable to alleviate the burden on the younger generation, and to sustain incentives for growth. Such changes, however, may leave a majority of voters – retirees and individuals close to retirement age – worse off, as their expected net benefits would decline. Hence, pension reforms may not be politically feasible, although – from a welfare perspective taking future generations into account – they are, in fact, desirable.[26]

Global warming is a similar inter-generational investment problem, coupled with more uncertainty about returns, this time. Most predictions suggest that the temperature associated with thermal equilibrium on earth will increase because of rapidly rising stocks of greenhouse gases (IPCC, 2007). Such temperature changes may have a sizable impact on the well-being of future generations,[27] while a substantial part of the costs of emission reduction is borne by the older generations.

Thus, RSRs should induce politicians to act on behalf of the younger generation, even against the interests of the majority of the current electorate. Yet if RSRs can induce socially desirable long-term policies, they may nonetheless also invite excessive investment at the expense of the current generation when politicians try to obtain them. Gersbach and Kleinschmidt (2009) show that optimally-designed RSRs will balance the benefits and costs of this instrument, so that it is welfare-improving.

RSRs can introduce severe time-inconsistencies: young voters may favor RSRs today, but may prefer their abolishment when they are old and have to bear costs from policies that are favorable to younger generations. As discussed in subsection 3.1, additional rules are required to overcome such time-inconsistency problems.

5.6. SUMMARY

Political contracts tend to have positive incentive and selection effects, and may reduce socially-undesirable spending. Moreover, we may justifiably expect such contracts to improve communication between the public and the politicians, and to foster the trust in politicians and democratic institutions, a consequence that is beneficial in its own right. Of course, our imagination may not cover every metamorphosis democratic decision-making will undergo when political contracts are introduced, and the research on Contractual Democracy is still in its infancy.

6. AN ILLUSTRATION OF THRESHOLD CONTRACTS

In this section we use an example to illustrate how threshold contracts work. This example and all proofs of the propositions are based on Gersbach and Liessem (2008a).

6.1. THE MODEL

We consider a simple effort problem with risk-neutral voters and politicians. We consider a typical period in which the incumbent has to exert effort e on a task T. The effort e on task T creates benefits b for the public in this period,[28] given by

$$b = e. \tag{1}$$

The reelection chances of politicians are influenced by their past performance, but the link may be weak.[29] We assume that reelection chances can be summarized by a continuous probability function $p(b)$, i.e. $p(b)$ is the probability that the politician will be reelected if benefit b is realized. In our example, $p(b)$ is given by

$$p(b) = \begin{cases} 0 & \text{for } b \le \underline{b}, \\ \gamma + \phi b & \text{for } \underline{b} \le b \le \bar{b}, \\ 1 & \text{for } b \ge \bar{b}, \end{cases}$$

with $-1 \le \gamma \le 0$, $\phi > 0$ and $\underline{b} = -\frac{\gamma}{\phi}$. Furthermore, $p(\bar{b}) = 1$ requires that $\bar{b} = (1-\gamma)/\phi$.

The expected utility of the politician is given by

$$W_1 + p(b)\, W_2 - C(e). \tag{2}$$

W_1 denotes the utility of office in the current period, W_2 the discounted utility of office in the next period, and $C(e)$ the cost of exerting effort. The utility from holding office may include monetary benefits, such as a fixed remuneration, and non-monetary benefits, such as prestige or the desire to have power. As utility W_1 from office in the current period is sunk after the politician has been elected, it can be neglected. The remaining expected utility takes the form

$$U^A(b,e) = p(b)W_2 - C(e) = p(e)W_2 - C(e) := U^A(e). \tag{3}$$

The participation constraint (PC) amounts to

$$p(b)W_2 - C(e) \ge 0, \tag{4}$$

noting that the utility of the outside option has been normalized to zero. If the politician intends to stand for reelection, he chooses an effort level that maximizes his expected utility given by

$$e = \arg\max_e \{p(b)W_2 - C(e)\}. \tag{5}$$

The agent's cost $C(e)$ is assumed to be given as follows:

Proposition 1: *Under the reelection scheme* $p(b)$, *the politician chooses his effort according to*

$$e^* = \begin{cases} 0 & \text{for } \frac{W_2}{c} < \frac{-4\gamma}{\phi^2}, \\ \phi\frac{W_2}{2c} & \text{for } \frac{-4\gamma}{\phi^2} \leq \frac{W_2}{c} \leq \frac{2(1-\gamma)}{\phi^2}, \\ \bar{b} & \text{for } \frac{W_2}{c} > \frac{2(1-\gamma)}{\phi^2}. \end{cases}$$

In a variety of circumstances, the reelection mechanism creates inefficiencies compared to the second-best outcome, as the politician may be able to secure his reelection with an effort smaller than e^{SB}, may choose low effort levels that involve the risk of deselection, or he may choose $e = 0$. The second-best outcome would be implemented if $\bar{b} = e^{SB}$ and $2(1-\gamma)/\phi^2 < W_2/c$.

6.4. Campaigning with Threshold Contracts

Next we allow politicians to offer a threshold contract themselves during a campaign. Such a contract contains a threshold value $\hat{b}$ with the following interpretation: If the benefit realized at the end of the current period is smaller than $\hat{b}$, the politician cannot stand for reelection. Otherwise, the politician can stand for reelection, and free and anonymous elections will take place.

We assume that there is a campaign stage before the current period, in which two political candidates, denoted by i, j, offer threshold contracts with values $\hat{b}_i$, $\hat{b}_j$ to the public, which will become effective upon election. The cost parameter of exerting effort of politicians i, j is identical and equal to c. The structure of the game is summarized as follows:

Stage 1 → Two politicians i and j offer threshold contracts with values $\hat{b}_i$, $\hat{b}_j$.

Stage 2 → Voters observe the threshold offers and elect one of the candidates.

Stage 3 → The elected politician exerts his effort on task T.

Stage 4 → The benefit from the politician's activity is realized. The public observes the benefit signal b. If $b < \hat{b}_i$, $\hat{b}_j$ respectively, the politician is disallowed from seeking another term. If $b \geq \hat{b}_i$, $\hat{b}_j$ respectively, the politician is allowed to stand for reelection.

We impose the tie-breaking rule that the politician works in the interest of the public if he is indifferent between two options. We first look at the

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In a variety of circumstances, the reelection mechanism creates inefficiencies compared to the second-best outcome, as the politician may be able to secure his reelection with an effort smaller than e^{SB}, may choose low effort levels that involve the risk of deselection, or he may choose $e = 0$. The second-best outcome would be implemented if $\bar{b} = e^{SB}$ and $2(1-\gamma)/\phi^2 < W_2/c$.

6.4. Campaigning with Threshold Contracts

Next we allow politicians to offer a threshold contract themselves during a campaign. Such a contract contains a threshold value $\hat{b}$ with the following interpretation: If the benefit realized at the end of the current period is smaller than $\hat{b}$, the politician cannot stand for reelection. Otherwise, the politician can stand for reelection, and free and anonymous elections will take place.

We assume that there is a campaign stage before the current period, in which two political candidates, denoted by i, j, offer threshold contracts with values $\hat{b}_i$, $\hat{b}_j$ to the public, which will become effective upon election. The cost parameter of exerting effort of politicians i, j is identical and equal to c. The structure of the game is summarized as follows:

Stage 1 → Two politicians i and j offer threshold contracts with values $\hat{b}_i$, $\hat{b}_j$.

Stage 2 → Voters observe the threshold offers and elect one of the candidates.

Stage 3 → The elected politician exerts his effort on task T.

Stage 4 → The benefit from the politician's activity is realized. The public observes the benefit signal b. If $b < \hat{b}_i$, $\hat{b}_j$ respectively, the politician is disallowed from seeking another term. If $b \geq \hat{b}_i$, $\hat{b}_j$ respectively, the politician is allowed to stand for reelection.

We impose the tie-breaking rule that the politician works in the interest of the public if he is indifferent between two options. We first look at the consequences when a politician, say i, has offered threshold $\hat{b}_i$ and is elected. The politician's reelection probability changes to

$$p(e,\hat{b}_i) = \begin{cases} 0 & \text{for } b \le \max[\underline{b},\hat{b}_i], \\ \gamma + \phi b & \text{for } \hat{b}_i \le \bar{b} \text{ and } \max[\underline{b},\hat{b}_i] \le b \le \bar{b}, \\ 1 & \text{for } b \ge \max[\bar{b},\hat{b}_i]. \end{cases}$$

The politician chooses his efforts according to the modified incentive constraint, which amounts to

$$e = \arg\max\{ p(e,\hat{b}_i)\, W_2 - ce^2 \}.$$

This yields

Proposition 2: *Three types of solutions can occur*:

(i) $e = 0$ (*lower corner solution*),

(ii) $e = \max\{\bar{b},\hat{b}_i\}$ (*upper corner solution*),

(iii) $e^{int}(\hat{b}_i) = \max\{\phi \frac{W_2}{2c},\hat{b}_i\}$ (*interior solution*).

The proposition indicates that the threshold contract increases the upper corner solution and the interior solutions if an adequate threshold signal is stipulated. In the upper corner solution, the effort level increases if a threshold signal $\hat{b}_i > \bar{b}$ is chosen. For the interior solutions, the effort level increases if a threshold signal $\hat{b}_i$ with $\hat{b}_i > \phi W_2/(2c)$ is chosen.

We use $e_i^*(\hat{b}_i)$ and $e_j^*(\hat{b}_j)$ to denote the global optimum of the politician's maximization problem. It follows that $e_i^*(e^{SB}) = e_j^*(e^{SB}) = e^{SB}$. Moreover, the (PC) is fulfilled at $\hat{b}_i = \hat{b}_j = e^{SB}$, since we have assumed $\bar{b} \le e^{SB}$.

We now look for the subgame perfect equilibria of the game. We assume that each politician is elected with a probability of 1/2, if the expected benefits for the public are the same for both candidates, i.e. $e_i^*(\hat{b}_i) = e_j^*(\hat{b}_j)$. Then we obtain

Proposition 3: *There exists a unique equilibrium in which both politicians offer the threshold values* $\hat{b}_i^* = \hat{b}_j^* = e^{SB}$.

Hence, competition for elections with threshold contracts produces the second-best outcome. The reasoning is as follows: Threshold value offers $\hat{b}_i^* = \hat{b}_j^* = e^{SB}$ are an equilibrium, because a downward deviation by a politician would yield zero election probability for him. A deviation to a higher threshold would also eliminate his chances to be elected, as an office holder i with $\hat{b}_i > e^{SB}$ would choose $e = 0$ when in office. Using standard Bertrand reasoning, it is straightforward to see that any other strategy combination cannot be an equilibrium.

6.5. Optimal Reelection Schemes

It is important to stress that the potential of threshold contracts to improve outcomes relies on the reelection scheme with weak links considered in this example. In this example with a one-shot election, it would be possible for the electorate to choose a reelection scheme that mimics the reelection threshold contract and only reelects incumbents if the benefits are at least as high as e^{SB}.

However, typically, such reelection schemes are not best responses when the link between effort and benefits is garbled by random events and in repeated election games, as the electorate cannot expect that a new candidate will perform better than the incumbent.[31]

7. CONCERNS

In this section we address some general concerns regarding Contractual Democracy.

7.1. External or Unpredictable Events

A possible argument against political contracts is that external and/or unpredictable events might prevent politicians from achieving the goals they have committed themselves to.

When the outcomes of policy measures are influenced by random events, the link between the politicians' efforts and their reelection chances becomes weaker. Such random events, however, do not destroy the positive incentive effects as long as the politicians have some influence on the likelihood of their reelection (see, e.g., Gersbach and Liessem, 2008a).

There are external events whose occurrence makes the fulfillment of the political contract itself socially undesirable. In the event of a threat to national security, for instance, it can be in the interest of the electorate to postpone balancing the budget. As discussed in section 4, a pre-specified renegotiation procedure can resolve such cases.

If the linking of a politician's effort to an outcome on a particular task is characterized by substantial uncertainty, political contracts may fail to provide additional incentives and may not justify certification – and such enforcement procedures are likely to be costly. We would expect politicians to remain cautious when offering political contracts on issues whose outcome is highly uncertain, and legislatures may renounce imposing them on the executive branch. However, this does not preclude from offering political contracts on other tasks.

7.2. THE CERTIFICATION PROBLEM

Only a subset of political tasks will qualify for certification, and thus allow political contracts.[32] Political tasks whose outcomes can be measured by macroeconomic, social or environmental indicators could qualify for certification. Examples are GDP, unemployment, fiscal discipline, tax rates, crime indices, or CO_2 emissons. In all of these cases, however, it is crucial to elaborate a precise definition of the indicators and to designate a neutral third party who will collect and verify the corresponding data. Other examples of usable "contract matter" are projects allowing a simple yes/no answer as to their implementation (building a bridge, abolishing a law, raising retirement age, etc.). In other areas, such as the reform of health care or the judicial system, the certification problem is much more severe, as no single indicator is available.[33]

The heterogeneity of certification possibilities across political tasks gives rise to multi-task concerns, which we will address in the next subsection. Overall, there are already enough examples where political contracts could be applied. Moreover, we expect the number of certifiable political tasks to increase considerably when Contractual Democracy is introduced.

7.3. THE MULTI-TASK PROBLEM

Politicians in the executive and legislative branch are typically concerned with many different issues. As discussed in the last subsection, some issues can, in principle, be quantified with sufficient precision, while this is not the case for other issues. In a significant part of their activities, politicians' performance cannot be measured with a sufficient degree of precision. The theory of multi-task incentive problems (Holmstrom and Milgrom, 1991) has shown that severe measurement constraints on some tasks can make it unwise or impossible to use high-powered incentive schemes. Such considerations challenge our proposal, as the effort allocation of politicians might be even more distorted in a Contractual Democracy, where political contracts center around some specific tasks, than in normal democracy. As discussed in section 5, politicians might focus too exclusively on the realization of their certified promises, while neglecting other areas, especially under threshold contracts. If politicians are only judged by their employment performance, for instance, they may simply inflate the public sector to meet the required standard, and neglect other important issues.

A variety of considerations lessens this concern. First, certified election promises are a threshold to candidacy. Hence the potential advantage for those candidates who pass the threshold would not be greater than it already is in a normal democracy. Second, in the theory of multi-task problems, Gersbach (1998) has also shown that global control – which corresponds to elections in the political sphere – can only provide optimal incentives in particular circumstances, and is usually dominated by task-specific control.

Third, the multi-task and measurement problem can even be alleviated by the hierarchical scheme defining Contractual Democracy. This has been shown in the context of long-term contracts by Gersbach and Liessem (2008b). The contract works as follows: A politician can only stand for reelection if he is willing to base his future income or his right to stand for reelection on his performance in a single issue, say unemployment. If he accepts this incentive component, he can stand for reelection, and voters can judge his performance on the remaining issues. If he has accepted the incentive contract, but has only worked to reduce unemployment, voters may not reelect him because he has a bad record on other important issues. Gersbach and Liessem (2008b) show that while multi-task problems introduce effort distortions with or without political contracts, such distortions decline when political contracts on one task are introduced.

7.4. THE DEMOCRACY PROBLEM

One might argue that Contractual Democracy is no longer a liberal democracy. By construction, this concern should not apply, as political contracts will not be certified if they alter the essence of a liberal democracy. Still, one might argue that the politician's self-imposed constraints on reelections might violate the universal right to candidacy at any time. However, as limits to the number of terms are also accepted in many democracies, self-imposed, conditional term limits introduced by threshold contracts could be adopted as well. Shortening the term by calling general elections in the case of poor performance does not violate any fundamental principle of liberal democracy either. A more delicate case might be political contracts that allow a lengthening of the term by some pre-specified time-span in the case of good performance, as discussed in subsection 2.2, as this could undermine the legitimacy of politics. Thus, those possibilities have to be limited.

Politicians might commit to campaign promises by signing private contracts. For instance, a politician could sign a contract with a charity, promising it a particular amount of money if he reneges on a promise specified in the contract. The politician might also deposit up-front a specific amount of money in a fund (bonding). This amount would only be returned to him if he kept his promise. In that case, he might even receive an extra bonus taken from private contributions. While such arrangements are conceivable in principle, they are not allowed in a Contractual Democracy, as they would allow interest groups to buy themselves directly into political processes. Moreover, it is likely that accountability to private persons or companies would undermine both accountability to the public and the public's trust in political processes and politicians. On the contrary, political contracts are intended to strengthen the accountability of politicians towards the public and to foster the public's trust in politics.

7.5. OTHER CONCERNS

There are various further concerns that have to be addressed. We provide six examples: First, one might argue that political contracts inhibit the formation of coalition governments, as the contracts of candidates and parties may be incompatible. As discussed in subsection 2.1, political contracts that are conditional on the formation of coalitions avoid such inconsistencies. Second, allowing all types of political contracts might generate conflicting incentives for politicians. For instance, when short-term and long-term political contracts are used simultaneously on intertwined issues, the politicians' actions might not simultaneously foster the fulfillment of both types of contract. The inconsistency problem can be largely avoided if contract design is primarily left to political actors such as candidates and parties, and the legislatures only act subsidiarily, and for non-elected public officials, in particular.

Third, a democracy does not operate in isolation, and is embedded in a market economy in most cases. How a societal system with a Contractual Democracy impacts on the market economy is an open issue. There are no obvious reasons to think that the impact will be negative. Fourth, one might be concerned about an increased incentive for opposition parties to filibuster policy projects in order to keep an incumbent from honoring his contract, if the rules allow such activities. Candidates will take such possibilities into account when offering political contracts. Moreover, as endless blockades are risky and may make opposition parties more accountable, the level of wasteful filibustering might actually sink in Contractual Democracy.

Fifth, one might argue that there are alternative democratic institutions that may achieve the same objectives. For instance, milder forms of the mechanisms proposed in this paper may suffice. Instead of reelection threshold contracts, one could rely on the information generated by the certification process alone, for instance. Voters would receive the information whether the certified promises have been kept, but the incumbent would not be formally denied to stand for reelection if he did not deliver. Ultimately, however, such milder forms tend to reintroduce the reliance on the voters' strong interest in punishing incumbents who renege on their promises, which political contracts can avoid.

Sixth, political contracts have not been used in most democracies so far. There are several possible explanations for this. First, political contracts are institutional innovations that have not been advocated with ideas and procedures that are easy to implement up to now. Second, politicians that are in power may be worse off after the introduction of political contracts. Challengers may not benefit immediately, as they can only propose the introduction of political contracts, but cannot offer political contracts themselves, as the legal framework has to be introduced beforehand. Hence, the absence of political contracts does not speak against them.

8. CONCLUSION

Modern liberal democracy can afford to use political contracts. However, such an implementation will require changes in constitutional and legislative norms. It will be necessary to establish the simplest and most promising way of using political contracts while keeping the administrative repercussions as slight as possible.

Contractual Democracy would radically alter the course of political action. Our suggestions indicate that the potential of liberal democracy has not been exhausted yet and that improvements through Contractual Democracy are not utopian, but a worthwhile goal.

Endnotes

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1. In general, this well-being is expressed by a social welfare function. In some, but not all cases, promoting the well-being of the median voter or applying the Kaldor-Hicks criterion is a useful practical guideline for policy-making.
2. See Buchanan and Tullock (1962), Olson (1965, 1982), Niskanen (1971), Tollison (1982), Mueller (1989), Bernholz and Breyer (1993/94), Dixit (1996), Drazen (2000), Persson and Tabellini (2000), Saint-Paul (2000) and Gersbach (2005).
3. The corresponding contract theory in the private area is surveyed, e.g., by Bolton and Dewatripont (2005), and Schweizer (1999).
4. The initial phase of Contractual Democracy has been developed in Gersbach (2005).
5. For an analysis of such contracts, see Gersbach and Liessem (2008a) for a single task, and Gersbach and Liessem (2008b) for multiple tasks.
6. For an analysis of tax contracts in three- and four-party systems, see Gersbach and Schneider (2008, 2009).
7. For an analysis of such debt-threshold contracts, see Gersbach (2010). We note that office holders may have incentives to increase implicit debt burden in order to lower explicit public debt as much as possible if reaching the threshold becomes difficult. This can weaken the pressure for fiscal stability.
8. The grand coalition formed by the Christian Democratic Union and the Christian Social Union of Bavaria (CDU/CSU) and the Social Democratic Party of Germany (SPD) increased the value-added tax by three percentage points, which exceeded the declared intentions of both parties during the election campaign. The CDU/CSU had announced a two-percentage-point increase, and the SPD had pledged not to increase the tax rate at all. For a comparison between conditional and unconditional tax contracts, see Gersbach and Schneider (2008).
9. For an analysis of such contracts, see Gersbach and Müller (2006).
10. See Gersbach (2007b). This theme has been further developed by Gersbach (2009) and Gersbach and Müller (2012).
11. From a welfare perspective, we conjecture that the vote threshold is increasing with the

number of terms.

12. Making remuneration of politicians dependent on specific policies was first examined in Gersbach (2003). In Gersbach (2004), politicians are allowed to compete with such schemes.
13. Due to internal party opposition, the envisaged coalition could not be formed. "Was die Wähler an der Politik so richtig nervt," http://www.welt.de/politik/article1781706 (retrieved August 7, 2012).
14. For the first analysis of such contracts, see Gersbach (2003). In Gersbach (2004), the competition of politicians for such contracts is examined.
15. For an analysis, see Gersbach and Kleinschmidt (2009).
16. The case is more complicated when there are separate elections for the legislative and executive branches, as in the US or in France.
17. In election models, it is, typically, either assumed that politicians commit to policies or cannot commit. In a Contractual Democracy, politicians can formulate certifiable campaign promises and can choose for which of these promises they are willing to risk utility losses.
18. The possibility for parties to renegotiate in the midst of a contractual relationship is central to contract theory (see Hart and Moore (1988), and Maskin and Moore (1999) for general characterization results).
19. Some ideas have been advocated to a broader audience in two short policy contributions (Gersbach, 2007a, and Gersbach, 2007c).
20. See the classic papers by Barro (1973), Ferejohn (1986), Austen-Smith and Banks (1989), and more recent models by Banks and Duggan (2002) and Aragones et al. (2007).
21. A nice example of how political uncertainty might impede economic growth by reducing public investment in the formation of human capital is given by Hashimzade and Davis (2006).
22. Voters may even have systematically biased beliefs about economic forces (Caplan, 2002) that may induce an office holder to disregard his promise.
23. Of course, these causes are neither mutually exclusive nor fully independent sources of political failure.
24. Moreover, to achieve socially desirable outcomes, the preferences of selected politicians should be sufficiently congruent to those of the electorate.
25. Whether or not competence or statesmanship can be signaled in elections alone has been explored in Gersbach (1999).
26. Starting with Browning (1975), a strand of literature (see Myles (1995) for a survey) has shown that voting equilibria regarding social security benefits and contribution rates lead to a social security budget that is excessive from a welfare point of view. The political economy of social security has been developed substantially further by Tabellini (2000), Casamatta et al. (2000), and Wagener (2002). Börsch-Supan (2000) provides an in-depth study for the German case.

27. See, e.g., Boehringer and Vogt (2003), Goulder and Pizer (2008), McKibbin and Wilcoxen (2002), Nordhaus (2006), Nordhaus and Boyer (1999), Schelling (2002), Stern (2006), and Tol (2006).
28. Additional benefits may also materialize in the next period, but this has no bearing on our main results.
29. For a microfoundation of weak links, see Gersbach and Liessem (2008a), Alesina and Rosenthal (1995), and Fearon (1999).
30. In a first-best solution, aggregate welfare (consisting of the utilities of voters and of the politician) is maximized. In such a first-best solution, the participation constraint of the politician can still be honored, but it may require additional transfers from voters.
31. Details are available upon request.
32. Even if an event becomes commonly known, it may not be verifiable by the external enforcer.
33. In some areas, however, a quality index similar to an inflation index can be targeted.

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